



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Whitted

Application No: 10/677,107

Filed: September 30, 2003

Title: Cabinet Structures Resistant to Racking
Deformation for Rack Mount Computing Systems

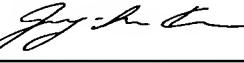
Atty. Dkt. No. GOOGP012

Examiner: Johnson, Blair M

Art Unit: 3634

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Signed: 
Jung-hua Kuo

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is a Brief on Appeal in the above-identified application.

- Applicant(s) hereby petition for a two month(s) extension of time to file a response to the Notification of Non-Compliant Appeal Brief.
- Enclosed is a Credit Card Payment Form PTO-2038 authorizing a charge of \$450.
- Applicant(s) believe that no (additional) Extension of Time is required; however, if it is determined that such an extension is required, Applicant(s) hereby petition that such an extension be granted and authorize the Commissioner to charge the required fees for an Extension of Time under 37 CFR 1.136 to Deposit Account No. 50-1217 (Order No. GOOGP012).
- If the required fees are missing or any additional fees are required during the pendency of the subject application, please charge such fees or credit any overpayment to Deposit Account No. 50-1217 (Order No. GOOGP012). A copy of this sheet is enclosed.

Respectfully submitted,

By: 

Jung-hua Kuo
Reg. No. 41,918
P.O. Box 3275
Los Altos, CA 94024
Telephone: (650) 988-8070
Facsimile: (650) 988-8090

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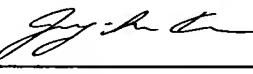
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Signed: 

Jung-hua Kuo

BRIEF ON APPEAL

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is an Appeal from the final rejection of claims 1-14 in the above-referenced patent application. In accordance with 37 C.F.R. §1.192, this Brief, along with the Claims Appendix, is filed and is accompanied by the required fee.

I. Real Party In Interest

The real party in interest is Google Inc. The subject patent application was assigned from appellants to Google Inc. The Assignment was recorded at Reel/Frame 015685/0693.

II. Related Appeals and Interferences

There are currently no known appeals or interferences which may directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

Claims 1-14 are appealed.

IV. Status of Amendments

No amendments to the claims were filed subsequent to the final rejection. Thus, the appeal is being taken on the basis of claims 1-14 as finally rejected, as presented in Claims Appendix submitted herewith.

V. Summary of Claimed Subject Matter

The inventions are generally directly to a frame structure for a rack mount computer system (independent claim 1 and claims dependent therefrom) and a rack for a rack mount computer system (independent claim 8 and claims dependent therefrom). Both independent claims are illustrated in FIGS. 1-5 and generally described at paragraphs [0010]-[0012], paragraph [0022], lines 3-15.

Independent claim 1 generally recites a frame structure for a rack mount computer system that generally includes four corner supports (e.g., FIG. 1, reference 14; paragraph [0022], lines 3-5), each corresponding corner support pair defining a front, rear, first, and second side of the frame structure therebetween and a first side wall (e.g., FIG. 1, reference 22; paragraph [0022], lines 8-10) disposed on the first side of the frame structure.

The first side wall may generally include at least two first rails (FIG. 1, references 28 and 36; paragraph [0027], lines 1-3) extending between the corresponding pair of the corner supports, at least one of the first rails being an angled first rail having an angled face (FIG. 1, reference 36b; paragraph [0027], lines 3-5) with a first exterior edge (FIG. 1, reference 36d; paragraph [0027], lines 6-8) and a first interior edge (FIG. 1, reference 36e; paragraph [0027], lines 8-10) recessed from the first side relative to the first exterior edge, the first angled face further having two first end edges (FIG. 1, reference 40; paragraph [0028], lines 1-2) each extending between the first exterior edge and the first interior edge, the two first end edges being at an angle less than 90° relative to the first side (paragraph [0028]) and being substantially attached to the corresponding pair of the corner supports.

Independent claim 8 generally recites a rack for a rack mount computer system that generally includes a first side wall and a second side wall (FIG. 1, reference 22; paragraph [0022], lines 8-10). The first side wall may extend between a front side and a rear side and may include a first front corner post, a first rear corner post (FIG. 1, reference 14), and two first rails (FIG. 1, references 28 and 36; paragraph [0027], lines 1-3) each extending between the first corner posts, the rack being configured to receive the plurality of rack mount electronics modules such that each module generally extends between the front and rear sides and are generally parallel to the first rails and generally orthogonal to the corner posts, at least one of the first rails being a first angled rail having a first angled face (FIG. 1, reference 36b; paragraph [0027], lines 3-5) with a first outer edge (FIG. 1, reference 36d; paragraph [0027], lines 6-8) and a first recessed edge (FIG. 1, reference 36e; paragraph [0027], lines 8-10) recessed from an exterior surface of the first corner posts relative to the first outer edge, the first angled face further having two first end edges (FIG. 1, reference 40; paragraph [0028], lines 1-2) each extending between the first outer and recessed edges, the two first end edges being at an angle less than 90° relative to the exterior surface of the first corner posts (paragraph [0028]) and being substantially attached to the first corner posts. The second side wall (FIG. 1, reference 22; paragraph [0022], lines 8-10) may generally oppose the first side wall and extend between the front side and the rear side, the second side wall including a second front corner post and a second rear corner post.

VI. Grounds of Rejection to be Reviewed on Appeal

In the final rejection, the Examiner rejected claims 1-14 under 35 U.S.C. 102(e) as being anticipated by Anderson et al. (US Pat. No. 6,605,777) (hereinafter “Anderson”).

Accordingly, the ground of rejection to be reviewed on appeal is whether claims 1-14 are anticipated by Anderson.

VII. Argument

Claims 1-14 Are Not Anticipated by Anderson

Claims 1-14 were rejected under 35 U.S.C. 102(a) as being anticipated by Anderson.

Independent claim 1 generally recites a frame structure that includes four corner supports defining front, rear, first, and second sides and a first side wall disposed on the first side of the frame structure. The first side wall includes at least two first rails extending between the corresponding pair of the corner supports. At least one of the first rails is an angled first rail having an angled face with a first exterior edge and a first interior edge recessed from the first side relative to the first exterior edge. The first angled face further has two first end edges each extending between the first exterior edge and the first interior edge, the two first end edges being at less than 90° relative to the first side and being substantially attached to the corresponding pair of the corner supports.

The claimed invention in independent claim 1 is a frame structure configured to receive the rack mount electronics modules such that each module generally extends between the front and rear sides, between the first and second sides, and are generally parallel to the first rails and generally orthogonal to the corner supports.

Similarly, the claimed invention in independent claim 8 is a rack configured to receive the rack mount electronics modules such that each module generally extends between the front and rear sides and are generally parallel to the first rails and generally orthogonal to the corner posts of the first side wall.

Such physical configurations are positive elements of the frame structure (in claim 1) or the rack (in claim 8). Examples of suitable structural configurations include pairs of opposing shelf supports, slide assemblies, or other suitable support structure to support the electronics modules. (See Specification, paragraph [0022]: “The support columns 14 and/or side walls 22 may provide surfaces on which to mount pairs of opposing shelf supports, slide assemblies, or any other suitable support structure (not shown) to support the stack of electronics modules 20.”)

In other words, the configurations as recited in claims 1 and 8 positively recite structures for receiving electronic modules. Simply because the electronic modules are not claimed does not render the positively recited configurations of the frame (claim 1) or rack (claim 8) as merely functionally recited. Rather, the structure of the frame or rack are physically and structurally configured and, thus structurally recited, as expressly recited.

In contrast, Anderson discloses side assemblies 26 that extend between a top and bottom panel assembly 22, 24. Each side assembly 26 includes two corner support channels each in the form of a corrugated and chamfered support member 28 and a series of cross strut members 30 anchored therebetween. (Col. 3, lines 39-44). As shown in FIG. 14b, the chamfered support member 28 may be angled inward from the top and bottom panel assemblies 22, 24.

However, each chamfered support member 28 are such that they are generally *orthogonal* to the electronics modules to be received therein.

Reversal of the rejection of independent claims 1 and 8 as well as claims 2-7 and 9-13 dependent variously therefrom is requested.

The Cross Bar Claimed in Claim 12 is Not Anticipated by Anderson

With respect to the cross bar extending between the first and second front corner posts as generally recited in dependent claim 12, Anderson clearly shows that the cross strut members 30 extend between the chamfered support members 28 and not between the corner posts. Because the Examiner interprets the corner posts of independent claim 8 as being read on by the top and bottom panel assemblies 22, 24, the Anderson's cross bars (cross strut members 30) are parallel to the corner posts and clearly do not extend therebetween.

Reversal of the rejection of dependent claim 12 is requested based upon this further argument.

Conclusion

In view of the foregoing, reversal of the rejection of claims 1-14 is requested.

In the unlikely event that the transmittal letter accompanying this document is separated from this document and the Patent Office determines that an Extension of Time under 37 CFR 1.136 and/or any other relief is required, Applicant hereby petitions for any required relief including Extensions of Time and/or any other relief and authorizes the

Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 50-1217 (Order No. GOOGP012).

VIII. Evidence

None.

IX. Related Proceedings Appendix

None.

Respectfully submitted,



By:

Jung-hua Kuo
Reg. No. 41,918
P.O. Box 3275
Los Altos, CA 94024
Telephone: (650) 988-8070
Facsimile: (650) 988-8090

Dated: February 14, 2007

Attached: Claims Appendix (Copy of claims 1-14 involved in the subject Appeal; 4 pages)



Claims Appendix

Pending Claims 1-14

1. A frame structure for a rack mount computer system having a plurality of rack mount electronics modules, comprising:

four corner supports, each corresponding pair of corner supports defining a front side, a rear side, a first side, and a second side of the frame structure therebetween; and

a first side wall disposed on the first side of the frame structure, the first side wall including:

at least two first rails extending between the corresponding pair of the corner supports, the frame structure being configured to receive the plurality of rack mount electronics modules such that each module generally extends between the front and rear sides, between the first and second sides, and are generally parallel to the first rails and generally orthogonal to the corner supports, at least one of the first rails being an angled first rail having an angled face with a first exterior edge and a first interior edge recessed from the first side relative to the first exterior edge, the first angled face further having two first end edges each extending between the first exterior edge and the first interior edge, the two first end edges being at an angle less than 90° relative to the first side and being substantially attached to the corresponding pair of the corner supports.

2. The frame structure of claim 1, further comprising a second side wall disposed on the second side of the frame structure, the second side wall including:

at least two second rails extending between the corresponding pair of the corner supports, at least one of the second rails being an angled second rail having an angled face with a second exterior edge and a second interior edge recessed from the second side relative to the second exterior edge, the second angled face further having two second end edges each extending between the second exterior edge and the second interior edge, the two second end edges being at an angle less than 90° relative to the second side and being substantially attached to the corresponding pair of the corner supports.

3. The frame structure of claim 1, wherein the two first end edges are substantially attached to the corresponding pair of the corner supports via at least one of weld joints, bolts, screws, and adhesives.

4. The frame structure of claim 1, wherein each of the front and rear sides are substantially open.

5. The frame structure of claim 1, further comprising a crossbar on at least one of the front and rear sides, the crossbar extending between the corresponding pair of corner supports.

6. The frame structure of claim 1, wherein the first side includes three first rails including a middle rail and two angled first rails.

7. The frame structure of claim 6, wherein the middle rail is also a first angled rail.

8. A rack for a rack mount computer system having a plurality of rack mount electronics modules, comprising:

a first side wall extending between a front side and a rear side, the first side wall including a first front corner post, a first rear corner post, and two first rails each extending between the first corner posts, the rack being configured to receive the plurality of rack mount electronics modules such that each module generally extends between the front and rear sides and are generally parallel to the first rails and generally orthogonal to the corner posts, at least one of the first rails being a first angled rail having a first angled face with a first outer edge and a first recessed edge recessed from an exterior surface of the first corner posts relative to the first outer edge, the first angled face further having two first end edges each extending between the first outer and recessed edges, the two first end edges being at an angle less than 90° relative to the exterior surface of the first corner posts and being substantially attached to the first corner posts; and

a second side wall generally opposing the first side wall and extending between the front side and the rear side, the second side wall including a second front corner post and a second rear corner post.

9. The rack of claim 8, wherein the second side wall includes:

the second front corner post, the second rear corner post, and two second rails each extending between the second corner posts, at least one of the second rails being a second angled rail having a second angled face with a second outer edge and a second recessed edge recessed from an exterior surface of the second corner posts relative to the second outer edge, the second angled face further having two second end edges each extending between the second outer and recessed edges, the two second end edges being at an angle less than 90° relative to the exterior surface of the second corner posts and being substantially attached to the first corner posts.

10. The rack of claim 8, wherein the two first end edges are substantially attached to the first corner posts via at least one of weld joints, bolts, screws, and adhesives.

11. The rack of claim 8, wherein each of the front and rear sides are substantially open.
12. The rack of claim 8, further comprising a crossbar extending between the first and second front corner posts.
13. The rack of claim 8, wherein the first side wall includes three first rails including a middle rail and two angled first rails.
14. The rack of claim 13, wherein the middle rail is also a first angled rail.